

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: Bill Sorsby <bill.sorsby@dlep1.itg.ti.com>
Subject: 100V Phase Shift Blues
Message-ID: <199611201656.KAA21852@dlep1.itg.ti.com>

Greetings,

I'd wondered how well the highly touted Central Electronics precision phasing system would stand up over time, given neglect and abuse. Now I know..., apparently, not very well.

It seems that the molded mica caps in the phase shift network in my 100V have deteriorated. Last night I found that C128 and C130 were leaky. In addition to shifting phase, these two caps provide DC blocking between AF amplifier stages. A very slight bias shift in the subsequent amplifier stages resulted from the leakage, causing severe distortion, although the actual phase shift was slight. I first replaced C128, an 1850.4 pf cap with a combination of 1% dipped micas I had on hand, hoping C128 was the only problem. This eliminated the phase error (given my measurement capability using a 547 scope), which had earlier looked to be perhaps 5 degrees. Unfortunately, there was still some jitter and distortion of audio so I continued looking for problems and found slight leakage through C130, a 4711.2 pf mica cap. I want to emphasize "slight" leakage. It barely tickled the meter on the VOM. I'd guess this between 25 Megohms and 50 Megohms. Nevertheless, I expect that this resistance drops considerably when subjected to the plate voltage of V7.

I'm not quite sure exactly how I'm going to fix the phase shift network yet. Based on the theory that where there's smoke there's fire, I'm inclined to pick up a selection of NPO's and dipped mica caps and put together combinations to replace all the molded mica caps in the phase-shift network. First, though, I gotta find a machine capable of measuring caps to 0.1%, since I don't have anything at the house with that sort of accuracy.

Since I don't have anything to replace the leaky 4711.2 pf cap (C130), as an interim fix, to eliminate the DC leakage, I may just put a large blocking capacitor in series with it and then pad C130 so that the overall capacitance remains about 4711.2 pf.

Since I keep running across BAD molded MICA caps, I'm beginning to really detest the things. Remembering the postings a while back saying that large value micamold caps are actually paper, I wondered about the ones in the phase shift network. It wouldn't make any sense, of course, to use paper caps for 0.1% accuracy, and I wondered whether Central Electronics would have made such a grievous error as to buy paper micamold caps thinking them to be real mica's. So..., I dissected the 1850.4 pf cap. Guess what? It's genuine MICA!

Based on evidence to date, the problem with these things is not restricted to a single manufacturer, either. All the molded mica caps in the phase-shift network were made by Aerovox. The molded mica cap I replaced in the RF driver last week was manufactured by El-Menco. I don't recall for sure what the molded mica was that I had to replace in my R390 a few months ago. It wasn't Aerovox, but it might have been El-Menco.

My conclusion is that a fundamental aging problem exists with molded mica caps. They may be better than paper caps, but that's not saying much.

In the interest of fairness to molded mica caps, I'll also point out that my 100V had been subjected to sufficient moisture over its lifetime to corrode a lot of the metal surfaces (as I've mentioned previously).

QUESTIONS for 100V owners: Anybody else had problems with the Audio Phase-Shift Network? Or..., has anybody bothered to measure sideband rejection to see what it really is? Central Electronics claimed 50 dB suppression of the unwanted sideband. Does anybody see that much today?

Regards,
Bill Sorsby, N5BU

bill.sorsby@dlep1.itg.ti.com
Views expressed herein are no one's fault but mine.

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: John Shriver <jas@shiva.com>
Subject: Re: 100V Phase Shift Blues
Message-ID: <199611201715.MAA03227@shiva-dev.shiva.com>

The fact that nobody makes molded caps anymore (of any sort), and all are either epoxy dipped or tubbed in epoxy, says that the molded caps simply were never really sealed against the environment.

The progression over time appears to have been:

no seal (riveted -- micas in 1930's)

wax dipped

molded plastic

ceramic tube with end fill (probably not epoxy)

wrap and fill (probably using epoxy)

epoxy dipped

epoxy tubbed (euro-style PC mount)

Of course, the modern plastic dielectrics probably aren't as sensitive to a little humidity incursion as the paper ones were.

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: "E. V. Sandy Blaize, W5TVW" <ebjr@worldnet.att.net>
Subject: Re: 100V Phase Shift Blues
Message-ID: <19961120185451.AAA4133@LOCALNAME>

At 05:21 PM 11/20/96 +0000, you wrote:

>The fact that nobody makes molded caps anymore (of any sort), and all
>are either epoxy dipped or tubbed in epoxy, says that the molded caps
>simply were never really sealed against the environment.

>

>The progression over time appears to have been:

>

>no seal (riveted -- micas in 1930's)

>

>wax dipped

>

>molded plastic

>

>ceramic tube with end fill (probably not epoxy)

>

>wrap and fill (probably using epoxy)

>

>epoxy dipped

>

>epoxy tubbed (euro-style PC mount)

>

>

>Of course, the modern plastic dielectrics probably aren't as sensitive

>to a little humidity incursion as the paper ones were.

>

The question of leakage is that most of the older type capacitors had *some* leakage. The question is: how much can be tolerated? Someone had a "fix" for slightly leaky Phase shift network caps. This was to

install DC "blocking" caps where DC was impressed on the PS network. I don't recall exactly where they were installed. The values of the caps in the PSN can be very critical, but as I recall, as long as they are within 1% or better there should be no problem. I would measure them on a decent bridge that's known to be accurate, like the General Radio 1650 series. Seems like Terman had some remarks about leakage in the Radio Engineering Handbook, or Henney in Radio Engineer's Handbook.

If no one comes up with 'off the top of his head' info, I guess I'll do some research on it and report back. By the way, if you are trying to align the 100V with a 'scope and 1000 hz audio generator, the audio generator MUST deliver a low distortion sine wave! Also even at this, you will NEVER rid the pattern of ALL ripple! Most phasing rigs must be compromised. I.E.: you can get VERY good unwanted sideband suppression on one sideband, but the other looks fair or vice-versa. The trick is to get the same amount of suppression on BOTH sidebands and have at least 30 db of unwanted suppression or better. This is easier to achieve with a 'filter rig'! "Phasing rigs" usually always have better and more pleasing audio, however.

73

E. V. Sandy Blaize, W5TVW

"Boat Anchors collected, restored, repaired, traded and used!"

417 Ridgewood Drive,

Metairie, LA., 70001

ebjr@worldnet.att.net

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996

From: Richard Hager <rhager@millcomm.com>

Subject: Re: 100V Phase Shift Blues

Message-ID: <329352CF.6B59@millcomm.com>

Bill Sorsby wrote:

> Based on the theory that where there's smoke there's fire, I'm inclined to
> pick up a selection of NPO's and dipped mica caps and put together
> combinations to replace all the molded mica caps in the phase-shift network.
> First, though, I gotta find a machine capable of measuring caps to 0.1%,
> since I don't have anything at the house with that sort of accuracy.

Hi Firebottle Bill,

Are you SURE those are .1% caps??? That sounds real doubtful to me. I'd be surprised if they're any better than 1%. In fact, I'm not sure I've ever even -seen- a .1% cap...

Second, I have a Boonton 75A-S8 cap bridge that measures to fractions of a pf.

I also have an HP4265B Universal Bridge, but I'm not sure of its resolution. Anyway, both are available, if anyone wants 'em.

I just paid \$55 plus foam-pack and freight for the HP, so I'd like to get that \$75 cost back out of it if I can. The Boonton, heck I don't know, make an offer. It's a gorgeous silver plated boatanchor. Mark Pilant was kind enough to send me a copy of the manual for it, so I'll include a copy.

>
> Since I don't have anything to replace the leaky 4711.2 pf cap (C130), as an
> interim fix, to eliminate the DC leakage, I may just put a large blocking
> capacitor in series with it and then pad C130 so that the overall
> capacitance remains about 4711.2 pf.

That's how it's done in Tek scopes. They have the classiest caps in the world (made their own) for timebases, but they didn't bother making 'em any closer than 1% as far as I know. They provide a trimcap to cal the timebase. Just guessing, but I think their main concern with caps was -stability-, not initial accuracy.

Hope this helps a little. Let me know if you'd like either of the bridges.

Richard

--

Richard Hager

+ Ah-ha! Design Group, Inc. -
+ Precision CNC Technology, since 1991 -
+ 612-641-1797, Fax: 612-641-8681 -
+ "I just like to make things" So... -
+ please call Ah-ha! directly for CNC info -
+ <http://www.gdic.com/ahha> email: ahha@gdic.com -

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: Michael Tallent <mtallent@concentric.net>
Subject: Re: 100V Phase Shift Blues
Message-ID: <32936B43.2A09@concentric.net>

Bill Sorsby wrote:

>
> Greetings,
>
> I'd wondered how well the highly touted Central Electronics precision
> phasing system would stand up over time, given neglect and abuse. Now I
> know..., apparently, not very well.
>

> It seems that the molded mica caps in the phase shift network in my 100V
> have deteriorated. Last night I found that C128 and C130 were leaky. In
> addition to shifting phase, these two caps provide DC blocking between AF
> amplifier stages. A very slight bias shift in the subsequent amplifier
> stages resulted from the leakage, causing severe distortion, although the
> actual phase shift was slight. I first replaced C128, an 1850.4 pf cap with
> a combination of 1% dipped micas I had on hand, hoping C128 was the only
> problem. This eliminated the phase error (given my measurement capability
> using a 547 scope), which had earlier looked to be perhaps 5 degrees.
> Unfortunately, there was still some jitter and distortion of audio so I
> continued looking for problems and found slight leakage through C130, a
> 4711.2 pf mica cap. I want to emphasize "slight" leakage. It barely
> tickled the meter on the VOM. I'd guess this between 25 Megohms and 50
> Megohms. Nevertheless, I expect that this resistance drops considerably
> when subjected to the plate voltage of V7.
>
> I'm not quite sure exactly how I'm going to fix the phase shift network yet.
> Based on the theory that where there's smoke there's fire, I'm inclined to
> pick up a selection of NPO's and dipped mica caps and put together
> combinations to replace all the molded mica caps in the phase-shift network.
> First, though, I gotta find a machine capable of measuring caps to 0.1%,
> since I don't have anything at the house with that sort of accuracy.
>
> Since I don't have anything to replace the leaky 4711.2 pf cap (C130), as an
> interim fix, to eliminate the DC leakage, I may just put a large blocking
> capacitor in series with it and then pad C130 so that the overall
> capacitance remains about 4711.2 pf.
>
> Since I keep running across BAD molded MICA caps, I'm beginning to really
> detest the things. Remembering the postings a while back saying that large
> value micamold caps are actually paper, I wondered about the ones in the
> phase shift network. It wouldn't make any sense, of course, to use paper
> caps for 0.1% accuracy, and I wondered whether Central Electronics would
> have made such a grievous error as to buy paper micamold caps thinking them
> to be real mica's. So..., I dissected the 1850.4 pf cap. Guess what? It's
> genuine MICA!
>
> Based on evidence to date, the problem with these things is not restricted
> to a single manufacturer, either. All the molded mica caps in the
> phase-shift network were made by Aerovox. The molded mica cap I replaced in
> the RF driver last week was manufactured by El-Menco. I don't recall for
> sure what the molded mica was that I had to replace in my R390 a few months
> ago. It wasn't Aerovox, but it might have been El-Menco.
>
> My conclusion is that a fundamental aging problem exists with molded mica
> caps. They may be better than paper caps, but that's not saying much.
>
> In the interest of fairness to molded mica caps, I'll also point out that my

> 100V had been subjected to sufficient moisture over its lifetime to corrode
> a lot of the metal surfaces (as I've mentioned previously).
>
> QUESTIONS for 100V owners: Anybody else had problems with the Audio
> Phase-Shift Network? Or..., has anybody bothered to measure sideband
> rejection to see what it really is? Central Electronics claimed 50 dB
> suppression of the unwanted sideband. Does anybody see that much today?
>
> Regards,
> Bill Sorsby, N5BU
>
> *****
> bill.sorsby@dlep1.itg.ti.com
> Views expressed herein are no one's fault but mine.
> *****

Bill:

ER august 1996 has an article on the 100V,200V by Charlie Talbott
(K3ICH). He put a 1 uf 200v polyester cap from V7A plate to the
junction of C128-C130 seems that the voltage causes deterioration of the
SM caps. Also covers so alternatives to the mercury batteries in the
clipper circuit.

I find this thread on these fine old rigs great, as I am about to put my
200V (#1488) on the bench so I hope all this info helps us all.

Claimed accuracy of the parts in the phase shift network is .1%.

73's Mike W6MXV ex W9HWW K4ZHI
Michael Tallent

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: Richard Hager <rhager@millcomm.com>
Subject: Re: 100V Phase Shift Blues
Message-ID: <32936E04.27C2@millcomm.com>

Michael Tallent wrote:

>
> Claimed accuracy of the parts in the phase shift network is .1%.
> --

Wow, highly unusual. Still, I bet they were -selected- to that accuracy, from
1% units.

Richard Hager

+ Ah-ha! Design Group, Inc. -
+ Precision CNC Technology, since 1991 -
+ 612-641-1797, Fax: 612-641-8681 -
+ "I just like to make things" So... -
+ please call Ah-ha! directly for CNC info -
+ <http://www.gdic.com/ahha> email: ahha@gdic.com -

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: mack@mails.imed.com
Subject: 100V Phasing network
Message-ID: <9610208485.AA848523141@mails.imed.com>

Bill and the group:

According to the work done by Rick Campbell on phasing type transmitters and receivers using sand state stuff, the best you can get for opposite sideband suppression without *a lot* of precision work is a bout 40 db. You can get 50db with much work and 60 db is basically impossible. To get 50db you need the phase difference from exactly 90 degrees to be no more than +/- 0.18 degrees (I hope I did the math right)!! That also assumes *no* amplitude imbalance (yeah sure). 30 db requires a phase match of *only* +/- 1.8 degrees. Again, that is the number assuming no amplitude imbalance. The real world is not so nice.

Ray Mack
WD5IFS
mack@mails.imed.com
Friendswood (Houston), TX

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: Cal Eustaquio N6KYR <ceustaqu@dot.w6bhz.calpoly.edu>
Subject: 32V feet. Got any?
Message-ID: <Pine.SUN.3.91.961120105734.19530C-1000000@dot.w6bhz.calpoly.edu>

I folks. Restoration of my unit still going strong. Just completed the front panel has been redone! Looks fine. Now to continue with the power supply. Looks like I'm going to replace the fuse holders and install a new power cord. Someone drilled an extra hole near that location. But luckily, I can utilize that hole to provide for a cable clamp that will act as a strain relief for the cord. Brought down the cabinet from my folk's qth last weekend. Did the repaint/refinishing two years ago! Now just a question: does anyone, anyone at all, have or know the source to the replacement feet that is found at the bottom of these St. James Grey

monsters? I have a hankering where I think they could be found (locally) but if anyone has a better suggestion, slip it to me! Happy restoring. I surely am. Cal. N6KYR, AMI #537.

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: djw@unlinfo.unl.edu (Daniel Wright)
Subject: 75A4 AM Filter?
Message-ID: <9611201406.AA00364@unlinfo2.unl.edu>

Greetings!

I have noted some discussion relating to AM filters for the 75A4. I wish to add my voice to the masses. I would really like to find a way to get my 'A4 on AM, either with an original filter (dream on, right?) or a suitable alternate way of doin' it! Then I can work on the next problem with the receiver: HUUUUUMMMMMM.....

Thanks! es
73 de Dan -- WA0JRD ..
djw@unlinfo.unl.edu

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: flegler@pilot.msu.edu (Stanley L. Flegler)
Subject: 807's sold
Message-ID: <199611202006.PAA75265@pilot18.cl.msu.edu>

The 807's are now sold. 73 Stan K8RPA, flegler@pilot.msu.edu

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: flegler@pilot.msu.edu (Stanley L. Flegler)
Subject: 811A's Sold
Message-ID: <199611201740.MAA26515@pilot08.cl.msu.edu>

The RCA 811A's are sold. The 807's are still available. Stan K8RPA, flegler@pilot.msu.edu

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: "E. V. Sandy Blaize, W5TVW" <ebjr@worldnet.att.net>
Subject: BA net: "Hartley night tonight?"
Message-ID: <19961120055045.AAA15830@LOCALNAME>

Hello BA Net fans,

I had to excuse myself early from the 0200Z session as I had guests in the house!

Fired back up later and heard a weak NA4G on. Bob gave a call to my CQ BA on 3579 and I found out he had his Hartley Oscillator on running a watt. I quickly pput together my setup and my type '10 Hartley oscillator and we made it a two way "Hartley" QSO! Lotsa QSB on the band tonight. Bob was using his regenny receiver (RAL I think!), so he was "olde Tyme" all the way. I was using my 1929

ARRL handbook type '10 Hartley which runs about 4-5 watts out, and the National NC-183D. When conditions get a bit better and the band gets quieter, we may have a time and QRG for "All SEO" (self-excited oscillators). That means a one-tuber directly coupled to the aerial, no crystals, to excite the ether!

Think it would be fun! (As soon as the band straightens out!) We went to the 160 meter QRG on 1802.5 (I was actually on 1803) and established contact. At first, 160 was better than 80, but that didn't last long! Wait 'till later this winter!

I'd like to get setup with the Hartley and the National SW-3 and have the "modern" receiver for a 'frequency meter' to get the Hartley on the right frequency! Use the SW-3 and Hartley for actual QSO! Although this is lots of *FUN* it tells you why CRYSTAL CONTROL was so widely accepted in the early '30's!!!

73 & ZUT!

E. V. Sandy Blaize, W5TVW

"Boat Anchors collected, restored, repaired, traded and used!"

417 Ridgewood Drive,

Metairie, LA., 70001

ebjr@worldnet.att.net

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996

From: J P Taillebois <jpt1@idirect.com>

Subject: BC-348-M & ART-13

Message-ID: <199611201319.IAA07669@nemesiis.idirect.com>

Well,

I have only been 2 days on the BA net and my mail server had to be expanded. You guys are great.

I picked up the ART-13 from my friend yesterday. The poor thing had been in his barn since the late 60's. He had originally bought it at a surplus store

in Toronto for \$25.00. He needed the vacum/relay, which is the only part missing. Cosmetically it is ok doesnot seem to hve holes that do not belong. Otherwise, a good cleaning is of order. All the tube are good (i like the big one's). The marking on the side say Royal Canadian Air Force. There is a little manual which describe the tuning procedures and the various frequency settings.

Besides a few cob webs all looks ok. Just amazing to see that autotune system. Well looks like a good project to me so where should i start?

Manual, schematics, missing vacum relay, power supply help....

Re the BC-348-M i must say thank you to everyone who answered my questions. Still looking for Knobs. I have not figured out yet why i must touch pret of the chassis to energize the BF0.

Someone sent me a very lrge file on the BC-348 but it is not readable. Maybe i am not setting my CPU correctly. The reply e.mail address is coming back incorrect.

Cheers everyone i must go to work to pay for my BA.

Jean Paul

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: Tom Norris <badger@telalink.net>
Subject: BC-611 seen on wreck.radio.swamp
Message-ID: <3.0.1.32.19961119233008.0068c0ac@telalink.net>

from rec.radio.swap

Flame me if you will for forwarding from there to the list, but it *IS* a BC611.....

I am cleaning out my collection of military "green stuff".

Have the following:

[snip]

- BC611 portable radio. Excellent condition. This is a one-watt AM walkie-talkie, you might have seen those Motorola ads where they had a photo of a micro TAC cellphone next to an old army walkie-talkie "Daddy fought in the war". That old radio was this BC611. The ones that I have look much better, though. They were used in the "Armee Francaise"

It has one channel in the HF band, but it can handle channels from 2 to 6 MHz.

It is set at 3885 kHz, the ham AM channel , although this particular channel was in there originally.

I have two of these radios (each at 3885 kHz)

Ask \$190 for each of them

Also have a box of channel elements, spare tubes and crystals for it, containing 12 channels (= 24 xtalls). Sell this box for \$120

Shipping not included.

Interested? Please email me at LDHONT@ti.com

Thanks for reading this

Loek

Tom Norris KA4RKT
badger@telalink.net Nashville, Tennessee, USA

Eagles may soar, free and proud, but weasels never get sucked into jet engines.

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: k7yha@juno.com (Richard H. Arland)
Subject: Re: bug trivia
Message-ID: <19961120.000100.4391.6.k7yha@juno.com>

On Tue, 19 Nov 1996 09:22:03 -0600 (CST) carl yaffey
<cyaffey@sprynet.com> writes:

>Try:
>BENS BEST BET
>as well. Ya can't help marching!

That's what the Air Force "Ditty-Bopps" used as a practice sending exercise in their CW school....I outta know, had one as a dorm roomie for 9 months at Keesler! Didn't affect me a bit: di dit, di dit, di dit...!

73 rich K7YHA

ditty dum dum ditty

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: Jeffrey Herman <jherman@hawaii.edu>
Subject: Re: bug trivia
Message-ID: <Pine.GS0.3.93.961119192516.15086E-100000@uhunix5>

ani one no y - opps... Anyone know why the drawn out _ _ . . _ _
means "You're an idiot" on the old maritime 500kc? We were warned
of this in USCG Radioman school but no one ever explained to us
how it came about.

I certainly did hear many of those sent while on watch. I'd even
throw one out every once in awhile, such as when some lid began
xmitting during a Silent Period:

3WKM 3WKM DE / SP SP / 3WKM 3WKM DE / SP LID / SRI I E 3WKM 3WKM DE /
_ _ . . _ _ (a few others would join in, too)

The I E above was sometimes used prior to the beginning of a call;
dunno why but it was. I'd even use it before our broadcasts:

. . CQ CQ CQ DE NMO NMO NMO (et cetera)

So that begs the question: How did that "prosign" originate? I can't find
my copy of the Landline Morse - I believe . . . was a character of it.

Funny how we used these little things on the air but no one seemed to
know where they came from.

Jeff KH2PZ / KH6

"XXX XXX XXX CQ DE FZMW FZMW FZMW BT LOST CONTAINER OVERBOARD IN POSN AS
AS (long pause) LOST TWO CONTAINERS OVERBOARD AS AS (long pause)
LOST MANY CONTAINERS OVERBOARD IN HEAVY SEAS QSW 512 KC UP"

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: "Roger A. McCarty" <rmccarty@deltanet.com>
Subject: Re: bug trivia
Message-ID: <3292ADCD.64ED@deltanet.com>

Richard H. Arland wrote:

>

> On Tue, 19 Nov 1996 09:22:03 -0600 (CST) carl yaffey

> <cyaffey@sprynet.com> writes:
>
> >Try:
> >BENS BEST BET
> >as well. Ya can't help marching!
>
> That's what the Air Force "Ditty-Bopps" used as a practice sending
> exercise in their CW school....

I have always thought it was;

"Bens Best Bent Wire"

Roger KD6CC

--

Accurate!

Electronics

Roger A. McCarty

Riverside, CA USA

<http://www.accurate1.com>

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996

From: "Paul Bock" <pauboc@smtplink.pulse.com>

Subject: Building your own flat-shaft Slo-Bug

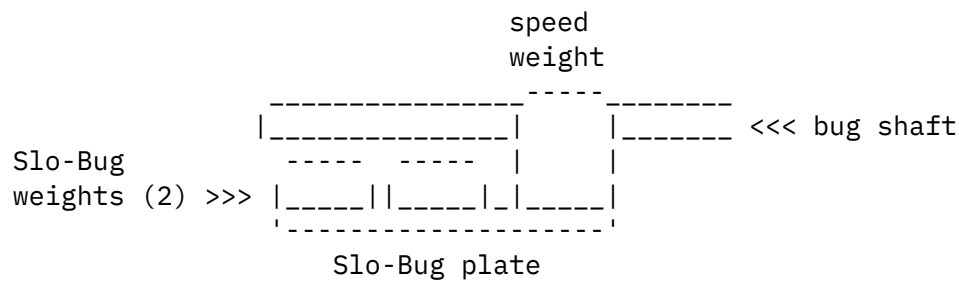
Message-ID: <9610208485.AA848529499@smtplink.pulse.com>

OK, all you do-it-yourselfers, here's one you can try at home if you have a flat-shaft bug (Lightning Bug, Champion, Zephyr, J-36). You'll need the following materials:

1. A flat plate made from 1/16" thick (or so) aluminum, plastic, PC board, or whatever. The plate should be rectangular, about 2" long and 1/2" wide.
2. An 8-32 round-head nylon screw, any length; your local hardware store should have them.
3. One or two pieces of brass, steel, lead, or whatever for weights; size is about 1/2" diameter if round or 1/2" square, and no more than 1/4" thick (or "tall").
4. A couple of 4-40 or 6-32 screws, or some kind of adhesive (see detailed instructions below), for attaching the weights.

Here's a side view of what you're trying to build: A flat plate attached to the bottom of the existing speed weight and carrying one

or two weights of some type.



Here's how to assemble it:

1. Remove the speed weight from the bug; note that the 8-32 hole goes all the way through.
2. Set the weight on a piece of paper, trace the bottom outline, and mark the location of the 8-32 hole.
3. The plate will mount *under* the weight using a nylon screw, and positioned parallel to the shaft. The weight (which is 1/2" wide) should be sitting on one end of the plate with the end and sides of both aligned.
4. Cut out the plate to the dimensions above. Use the paper as a template to mark the 8-32 hole location and drill out the plate for a clearance hole.
5. Decide what you're going to use for weights (remember, no more than 1/4" tall so they'll fit under the shaft) and how you're going to mount them, then drill for screws or glue them on the plate as you wish.
6. With the weights mounted on the plate, attach the plate to the underside of the bug speed weight using a 3/16" long nylon screw. If yours is longer, just cut it off with diagonal cutters. It should extend **NO MORE** than about 1/8" into the bottom of the speed weight hole, otherwise the speed weight screw (inserted from the top) will hit it and the weight won't be tight on the shaft.

That's it! This attachment will move along the shaft with the speed weight, and the only difference will be that the speed range is lower, the amount of decrease depending on the amount of weight you put on the plate. If you want to carry your vintage flat-shafter in an old-style, end-opening case, no problem! Just slide the speed weight inward until the extension no longer extends beyond the end of the base.

Incidentally, this is the design for the Slo-Bug Model L (but the latter will use nickel-plated brass, removable weights, etc.).

73,

Paul, K4MSG

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: merrigan@ee.ualberta.ca
Subject: Capacitor Source
Message-ID: <199611201920.NAA27940@uro.theporch.com>

Flipping through the latest Mouser Electronics catalogue, I see that they have added a couple of capacitor lines of interest to BA'ers: high voltage polypropylene, and high voltage polyester. The former are available in ratings up to 2kV dc. Mouser also has a good selection of ceramic disk (various temp coefficients) up to 10kV, electrolytics up to 450 Vdc (radial and axial). They also have a reasonable selection of dipped Mica caps at 300 and 500 Vdc ratings. In my experience, their prices are reasonable, and their service is excellent.

(Comments from a satisfied customer)

Mouser's Web page: <http://www.mouser.com>
Mouser's Telephone #: 1-800-346-6873

Shaun

--

merrigan@nyquist.ee.ualberta.ca
Electrical Engineering Student
University of Alberta
Edmonton, Alberta, Canada

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: "Richard A. George" <wa6jox@rain.org>
Subject: Re: Capacitor Source
Message-ID: <Pine.SUN.3.95.961120122758.4966A-1000000@coyote.rain.org>

And if you order by noon california time you will have them the next day
UPS. Don't ask me how they do it!

On Wed, 20 Nov 1996 merrigan@ee.ualberta.ca wrote:

> Flipping through the latest Mouser Electronics catalogue, I see that they
> have added a couple of capacitor lines of interest to BA'ers: high
> voltage polypropylene, and high voltage polyester. The former are
> available in ratings up to 2kV dc. Mouser also has a good selection of
> ceramic disk (various temp coefficients) up to 10kV, electrolytics up to 450
> Vdc (radial and axial). They also have a reasonable selection of dipped
> Mica caps at 300 and 500 Vdc ratings. In my experience, their prices are
> reasonable, and their service is excellent.

>

> (Comments from a satisfied customer)

>

> Mouser's Web page: <http://www.mouser.com>

> Mouser's Telephone #: 1-800-346-6873

>

>

> Shaun

>

>

> --

> -----

> merrigan@nyquist.ee.ualberta.ca

> Electrical Engineering Student

> University of Alberta

> Edmonton, Alberta, Canada

> -----

>

>

>

>

>

>

>

>

>

>

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: Clark Fishman (FSAC) <cfishman@PICA.ARMY.MIL>
Subject: Caps for Phasing
Message-ID: <9611201506.aa26760@COR6.PICA.ARMY.MIL>

If you need to match caps for phasing networks...build a simple oscillator and measure freq with your counter...simple

WA2UNN

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: jllyle@netcom.com (Jim Lyle)
Subject: Drake TR3 advice??
Message-ID: <199611201833.KAA18756@netcom.netcom.com>

Hello;

My brother expects to pass the code test for his novice certificate this weekend (I'm a few weeks behind... having fits learning Morse code). He'll be using a Drake TR3 (from 1965) as his first rig.

Neither of us have any experience with tube transmitters in general, and this one in particular. Does anyone have any hints or advice for us on how we should inspect, power up, and finally use this thing? Are there any particular quirks this particular rig has that we need to be careful of?

--

Jim Lyle

jllyle@netcom.COM

<http://www.troubadortech.com/jllyle/>

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: Norman Hammar <norm@cqg.com>
Subject: DX-100 knobs
Message-ID: <9611201445.AA11781@mail>

Does anyone have knobs for a Heathkit DX-100. Please email norm@cqg.com.

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996

Here is something that might be of interest to a BA collector...

I have for sale two new in the box RCA 811A's and two new in the box RCA 807's. I got these years ago from an old timer who had kept them in a drawer for years. The boxes are like new. I thought about putting them on display for a shack decoration. There isn't room for that, so I'll pass them on to someone who has a need for them. Antique Electronic Supply wants \$37.80 for US 811A's and \$12.90 for 807's. I'll sell the 811A's for \$15.00 each and the 807's for \$7.00 each, plus UPS shipping. Stan K8RPA,
flegler@pilot.msu.edu

Gang:

I'd like to swap it for something interesting like the TM for the R-388 or R-388A, or what have you? Otherwise I'd sell it for \$20.00 plus postage if no suitable trade is possible.

/ 73, Michael Crestohl, W1RC, mc@shore.net Cambridge Vermont 05444-0024

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: Michael Crestohl <mc@shore.net>
Subject: FS: Classic Boatanchor receiver service textbook
Message-ID: <199611200856.DAA20661@northshore.shore.net>

Hello again gang:

I just upgraded my copy of ELEMENTS OF RADIO SERVICING by Marcus and Levy. The one that has been in my library is now a second copy and I just don't have room for it. This is the SECOND EDITION of a very popular mod fifties textbook that covers troubleshooting and repairing tube-type radio receivers. This is a wonderful course of study for the newcomer to the Boatanchors subset and there is a lot of useful information, Boatanchor technology and knowledge between its covers.

I'll sell it for \$20.00 delivered in the USA. Please reply by e-mail if interested.

/ 73, Michael Crestohl, W1RC, mc@shore.net Cambridge Vermont 05444-0024

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: "Lynn D. Stolz" <lynn@midohio.net>

Subject: FS: Hammarlund HQ-110
Message-ID: <329291B0.4E9C@midohio.net>

Gang,

I have a really nice Hammarlund HQ-110 that is excess to my needs. Its front panel is very nice, it has all its original knobs, and works well on all bands, although 6 is a bit deaf like all the others I have run across. The top of the chassis has some pitting but the bottom is clean, It has a 3 wire power cord vs. the original 2 wire. The receiver is very stable and warmup drift is in the order of 5-6 Kc. The S meter cover has no cracks, and it is NOT a "C" model, nor has ever had a clock. The receiver also comes with a HI-Manuals copy.

I'd like to give as many people as possible an opportunity to bid on it so I am offering it to the highest bidder over \$100 (please include estimated UPS shipping from ZIP 43015 in your bid) received by Friday morning, the 22nd. I'll notify the highest bidder that day via direct e-mail.

Lynn, N8AJ lynn@midohio.net 614.369.9777

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: "Benjamin D. Hall" <BDHall@GHGCorp.com>
Subject: FS: Racal RA6790/GM
Message-ID: <329289B0.7111@GHGCorp.com>

A while ago, someone on BA mentioned that they are looking for a Racal RA6790/GM HF receiver. I have decided to sell mine. Please write for detailed description, I'll return all e-mail.

Thanks and 73,
Ben

--

From the computer of | Collector of fine firebottle
Benjamin D. Hall, Houston Texas | equipment, as well as other things
BDHall@GHGCorp.com -or- | involving Earth, Air, Water, and
Benjamin.D.Hall1@JSC.NASA.gov | Fire.

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: J P Taillebois <jpt1@idirect.com>
Subject: Gonset GSB-100
Message-ID: <199611202205.RAA07095@nemesis.idirect.com>

I aquired a while back a nice looking Gonset-100.It looked like it came out of the box. The previous owner had it on the air one day and pouf it died on him.

He "practically" gave it to me.

I finally had a good look the other day and rapidly found out that the power tfmr was gone.Obviously from what i heard, a weak element in that rig.

I am looking for a replacement for this, I have also left a note with Fred Hammond who a while back said that he might be able to rewind the damage culprit.(for those of you who might have some special needs Fred is really helpfull you must visit his museum in Guelph Ontario and play with the spark gap tmtr..)

If you have a spare tfmr let me know.

I have other projects to talk about later. "To many projects not enough time" who said that?

cheers

Jean Paul Taillebois Oshawa, Ontario,Canada

e.mail jpt1@idirect.com

packet: ve3jpt@va3bbs

voice:905-723-1811

fax/data:905 723-9156

Collector: Hallicrafters,Central-Electronic,Gonset, Military BA

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996

From: George Humphrey <gah@koyote.com>

Subject: Halicrafter Manuals Wanted

Message-ID: <199611201421.IAA10965@mail.koyote.com>

BAers

I am in need of manuals for the SX-130 and the HT-40. Usual offers of reimbursement apply, or if you know of a good source please let me know.

Thanks and

73 George KC5WBV

gah@koyote.com

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996

From: k7yha@juno.com (Richard H. Arland)

Subject: Re: Halicrafter Manuals Wanted

Message-ID: <19961120.215257.4407.1.k7yha@juno.com>

On Wed, 20 Nov 1996 07:23:29 -0600 (CST) George Humphrey <gah@koyote.com> writes:

>BAers

>

>I am in need of manuals for the SX-130 and the HT-40.

George:

I have the SX-130 manual copied for you. I'll try to get the HT-40 manual done by the weekend and send them both out.

73 rich K7YHA

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996

From: radionostalgia@serv2.fwi.com (Jack C. Shutt)

Subject: Heathkit Logo for DX-100

Message-ID: <199611202200.RAA11793@serv2.fwi.com>

Hello Anchorites:

Does anyone have a junker DX-100? I need the Heathkit plastic logo that goes on the front panel. Some were chrome, some were black plastic. Either would be ok.

73, Jack , N9GT

Jack C. Shutt, N9GT

radionostalgia@mail.fwi.com

(219)493-3901

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996

From: "Paul Bock" <pauboc@smtplink.pulse.com>

Subject: Homebrew Slo-Bug - cheap & easy!

Message-ID: <9610208485.AA848521577@smtplink.pulse.com>

For those interested in trying out the shaft-extension idea on a round-shaft bug, here's an easy way to do it which works and is cheap.

For materials, you'll need about a 1-inch length of 5/32" brass, aluminum, steel, or plastic rod; even a small wood dowel will work. You'll also need about a 3/4" length of 3/16" diameter heat-shrink

tubing (3/16" *before" shrinking, that is!).

Slip the heat-shrink tubing over the rod and over the end of the shaft on your bug; it helps to prop up the rod so that it is horizontal and butted up against the bug shaft. Heat using a hair dryer or heat gun, and the tubing will shrink up tightly around the rod and the shaft.

After it has cooled *completely* (at least 10 minutes), you can try putting some weight on the rod and see how it affects your bug's minimum speed. If you use a lot of weight (like, two speed weights) the rod may sag, but it doesn't seem to affect the performance.

I also found that, because the bug shaft is polished chrome (or nickel if it's an older bug), I could slip the rod and tubing off the shaft, and then slip it back on again. The tubing holds it's shape nicely, although too many "ons and offs" will probably cause it to loosen. Of course, the tubing will have to be removed from the shaft to remove a weight from the bug.

Best of all, if the tubing gets too loose and starts to sag too much, just repeat the process with another piece.

Caution: If you use a plastic rod, beware of using too much heat.

73,

Paul, K4MSG

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996

From: Eugene Rippen <soundval@foothill.net>

Subject: HW101/HP23 FS

Message-ID: <3292973D.70E7@foothill.net>

Very clean, original, working Heathkit HW101 and HP23 for sale with manual. No Mic.

\$150 plus shipping

Please state address so I can figure shipping.

Gene

Eugene Rippen, 105 Donnington, Auburn, CA 95603

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: Richard Hager <rhager@millcomm.com>
Subject: Re: Johnson Valient I Transformer
Message-ID: <3292894E.4711@millcomm.com>

David Stinson wrote:

>

> Anyone know where I can find a replacement low-voltage
> transformer (the one with the 2.5 VAC winding and the
> low B+) for a Valient I?--

I've noticed a few posts lately looking for small pwr xformers, and one of them suggested that replacements cost \$300. That's ridiculous!!

We've had custom 500 VA -toroidal- ac pwr xformers made for us in singles for \$120, with delivery in 3 wks. That's a 10 lb, half a kilowatt puppy.

If you're supplier is nicking you \$300 for a dinky EI core unit, I'd say look around!

You might try Nicollet Technology in Mpls, 612-379-7919. We don't use them in production any more, since we stopped using that part, but did get product from them for several years with satisfaction.

Anyway, any small xformer house should be happy to make you up a 50va EI sample for \$100. (I just used the metro yellow pages last time around).

Hope this helps,

Richard Hager

+ Ah-ha! Design Group, Inc. -
+ Precision CNC Technology, since 1991 -
+ 612-641-1797, Fax: 612-641-8681 -
+ "I just like to make things" So... -
+ please call Ah-ha! directly for CNC info -
+ <http://www.gdic.com/ahha> email: ahha@gdic.com -

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: "L. Mark Pilant - MS:ZK03-4/Y02 DTN:381-1529" <pilant@seesaw.ENET.dec.com>
Subject: Looking for shielded test lead wire
Message-ID: <9611202035.AA29813@us2rmc.zko.dec.com>

I'm in the process of repairing a couple of HP-410C meters an a ME-26B/U as well. In both these units, the regular test lead wire isn't any problem.

However, they also use shielded test leads. Does anyong know of a source

for this? I measured the original, and it appears to have much the same characteristics as RG-174; except it is larger in diameter (.135-.140 vs .100).

I've looked through some of the catalogs I have and haven't come up with anything better than RG-174. This looks like it will work, but if there is something which would fit better, I'd like to use it.

Also, does anyone know of a source for reasonably good test probes? I don't really want to butcher up new test leads if I can find a source for reasonable test probes. I've seen some in various places, but it is very hard to judge from a description or picture.

Thanks in advance.

73

- Mark N1VQW

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996

From: Larry Godek <AZCOT@gnn.com>

Subject: Manual for sale.

Message-ID: <199611200301.WAA20868@mail-e2b.gnn.com>

I have a 2nd copy of the T.O 08-10-37, Frequency Meter Set SCR-211-B by Cardwell. Its an original in like new condition. Dated December 14, 1942 BTW. If your interested, its \$20 shipped.

No rules apply for this. First or earliest time stamp with November 21 date gets it.

Larry Godek W00GH
AZCOT@gnn.com

Gilbert, AZ. 85233

Ex-W6KQL, W8BPV, DL5LS, K0TAO, KN6TUP

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996

From: "Paul F. Carreiro" <carreiro@current.BarePower.net>

Subject: Need Info: Collins 51X-2B

Message-ID: <199611200921.BAA04082@current.barepower.net>

Greetings fellow boatanchorites...

A friend of mine, and ex-Collins employee, Bob, K6ITS just purchased a Collins 51X-2B VHF AM aircraft receiver. He is looking for any information available on this BA. A schematic and or manual copy would be appreciated.

The reciever apparently requires 110 VAC at 400 cps. He has determined this voltage drives the primary of a 6 V filament transformer. He is looking for comments / tips on either generating 110VAC at 400cps, or, replacing the transformer with a like 60cps 6 V filament transformer. Does anyone out there have any hints or tricks up their sleeves related to 400cps aircraft gear?

To expedite responses, please send them direct to Bob, K6ITS at his email address:

bobdavis@tstonramp.com

73 for now. Paul N6EV

Paul F. Carreiro - N6EV - E-Mail: carreiro@barepower.net
QRP / Boatanchors / Mobile CW / QRQ +40WPM / ex-N6HCS
NorCal QRP #367 / QRP QRCI #8885 / CW FISTS #1407 / QRP-L #236
Zuni Loop Mountain Expeditionary Force (QRP Field Day)

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: "Robert Fowle (KC8DBC)" <hammarlund@jacksonmi.com>
Subject: Re: Need Info: Collins 51X-2B
Message-ID: <2.2.16.19961120095333.232f79ea@fvmail.com>

should he not able to find a 2B manual...

i have this:

COLLINS 51X1A manual original

At 02:18 AM 11/20/96 -0600, Paul F. Carreiro wrote:

>Greetings fellow boatanchorites...

>

>A friend of mine, and ex-Collins employee, Bob, K6ITS just purchased a
>Collins 51X-2B VHF AM aircraft receiver. He is looking for any information
>available on this BA. A schematic and or manual copy would be appreciated.

>

>The reciever apparently requires 110 VAC at 400 cps. He has determined this
>voltage drives the primary of a 6 V filament transformer. He is looking for
>comments / tips on either generating 110VAC at 400cps, or, replacing the
>transformer with a like 60cps 6 V filament transformer. Does anyone out there
>have any hints or tricks up their sleeves related to 400cps aircraft gear?

>

>To expedite responses, please send them direct to Bob, K6ITS at his email
>address:

>

> bobdavis@tstonramp.com

>

>73 for now. Paul N6EV

>

>

> Paul F. Carreiro - N6EV - E-Mail: carreiro@barepower.net
> QRP / Boatanchors / Mobile CW / QRQ +40WPM / ex-N6HCS
> NorCal QRP #367 / QRP QRCI #8885 / CW FISTS #1407 / QRP-L #236
> Zuni Loop Mountain Expeditionary Force (QRP Field Day)

>

>

>

**** Please, Visit my Web Page.....****

=====]-[->

Robert Fowle KC8DBC
The HAMMARLUND Historian
Ph. 517-789-6721
1215 Winifred
Jackson, Mich. 49202-1946
E-mail: hammarlund@jacksonmi.com
Web Page: <http://www.jacksonmi.com/hammarlund>

HAMMARLUND LITERATURE WANTED

WANTED: MANUALS FOR ANY MAKE RADIO EQUIPMENT

=====]-[->

see it first on my list...to be put on the 'mail list' (send me email)
or see it later in.....

Boatanchors news group: rec.radio.amateur.boatanchors

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996

From: heikud@directcon.net (Dennis Heikura)

Subject: Parts for HW-101

Message-ID: <199611200303.TAA28173@zeus.directcon.net>

Another parts unit Heath. HW-101 arrived thats too good to part out. Only needs
a couple of items. Its a late model as all 1/2 watt resistors are metal film.
Anybody have a junker that has any of the following?

RF Compartment Cover
Tall, Fat push on tube shield for the 6CL6 driver.
Short, Fat push on tube shield for a 9 pin. (6EA8 Mic Amp})
Lever knob for loading control.

Any and all help appreciated.

73 Denny
WB7EGG

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: Jeffrey Herman <jherman@hawaii.edu>
Subject: Re: Parts for HW-101
Message-ID: <Pine.GS0.3.93.961119170614.15086B-100000@uhunix5>

On Tue, 19 Nov 1996, Dennis Heikura wrote:
> Tall, Fat push on tube shield for the 6CL6 driver.
> Short, Fat push on tube shield for a 9 pin. (6EA8 Mic Amp})

Past advice was to leave off tube shields unless they are
absolutely necessary - more efficient cooling (which
means longer tube life) will result.

Jeff KH2PZ

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: GIBSON@ASTRA.LBL.GOV
Subject: R1051 receiver
Message-ID: <961120125714.2680074b@ASTRA.LBL.GOV>

Can anyone tell me if it is usual for the R1051 panel lamps to flicker
when the tuning motor kicks in?

Also is there a source for those panel lamps (Grimes #A9906-1)?

Thanks John Gibson
Gibson@ASTMAG.LBL.GOV

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: "al parker" <al_parker@kacc.com>
Subject: re: Radio Compass
Message-ID: <9610198484.AA848467225@ccuucp.kacc.com>

Reed, et al,

Sorry to get your hopes up on the schematic. Can't find it, but that doesn't mean it's not here. Did find a lot of other memories, tho'. Didn't find the xtal filter either, but I've moved since I last saw the stuff, so there's still some hope.

My radio compass was a MN-26-C, if I remember right. Had a lot of metal tubes in it, don't think I ever had to replace any, but do remember replacing a capacitor along the way.

I'll be out of touch a few days, but will continue the search on the weekend.

Al, W8UT

"A fanatic is one who doubles his efforts after losing sight of his objective" unknown

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996

From: "James F. Wood" <WOODJ@mail.firn.edu>

Subject: Scope 561-B manual needed

Message-ID: <C546ZWUJKCA4*/R=FIRNVX/R=A1/U=WOODJ/@MHS>

I need a manual for a Tek Scope 561-B, I have 15 or these units all without probes etc. A copy of a manual will do fine in any condition, Anyone have experience with these scopes are they worth checking out etc. I have NO experience with scopes in the last 15 years.

Thanks Jim

N4ACS

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996

From: "Bob Ragain, 303-470-2534, RAGAIN@SEDALIA.OMNES.SLB.COM"

<RAGAIN@hubvx6.sedalia.wireline.slb.com>

Subject: Sibley's Tube Lore Book

Message-ID: <961120110818.2505f549@hubvx6.sedalia.wireline.slb.com>

I just got my copy of Ludwell Sibley's book "Tube Lore". Great book!!! Highly recommended to anyone who likes old tubes (and who here doesn't?)

One tube I haven't found reference to yet is an RK 707B. Anyone know what it is?

Thanks,

Bob

Bob Ragain WB4ETT Littleton, CO WB4ETT@SLB.COM

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: "E. V. Sandy Blaize, W5TVW" <ebjr@worldnet.att.net>
Subject: Re: Sibley's Tube Lore Book
Message-ID: <19961120185908.AAA5569@LOCALNAME>

At 06:11 PM 11/20/96 +0000, you wrote:
>I just got my copy of Ludwell Sibley's book "Tube Lore". Great book!!!
>Highly recommended to anyone who likes old tubes (and who here doesn't?)
>
>One tube I haven't found reference to yet is an RK 707B. Anyone know
>what it is?
>
>Thanks,
>
>Bob
>
>
>-----

>Bob Ragain WB4ETT Littleton, CO WB4ETT@SLB.COM
>

The RK 707B is a "klystron" tube. As I recall, a funny looking tubular
skinny glass tube with two disk seals on it and a "pin" type cap on the
upper end. It used an external cavity (single one) Actually it is what is
known as a "reflex klystron" which is a microwave oscillator tube.

73

E. V. Sandy Blaize, W5TVW
"Boat Anchors collected, restored, repaired, traded and used!"
417 Ridgewood Drive,
Metairie, LA., 70001
ebjr@worldnet.att.net

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: Al Klase <alklase@prolog.net>
Subject: Re: Sibley's Tube Lore Book
Message-ID: <199611201953.NAA28391@uro.theporch.com>

Tube meisters (or should that be Rhorenmeisteren)

From Sandy's description, I'll bet it a Raytheon version of the
Western Electric 707B. See Sibley page 165. If it fits the 707

description, let me know and I'll pass it on to Ludwell.

73, Al

At 06:11 PM 11/20/96 +0000, Bob Ragain wrote:

>>I just got my copy of Ludwell Sibley's book "Tube Lore". Great book!!!
>>Highly recommended to anyone who likes old tubes (and who here doesn't?)

>>

>>One tube I haven't found reference to yet is an RK 707B. Anyone know
>>what it is?

>>

At 01:00 PM 11/20/96 -0600, Sandy Blaize wrote:

>The RK 707B is a "klystron" tube. As I recall, a funny looking tubular
>skinny glass tube with two disk seals on it and a "pin" type cap on the
>upper end. It used an external cavity (single one) Actually it is what is
>known as a "reflex klystron" which is a microwave oscillator tube.

Al Klase - N3FRQ
alklase@prolog.net
Flemington, NJ

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: Rodger Singley <rbsingl@rs6000.cmp.ilstu.edu>
Subject: SX42 discriminator conclusion
Message-ID: <9611201919.AA102910@rs6000.cmp.ilstu.edu>

I have tried to reply personally to all of those who responded to my question on the SX42 discriminator tuning and so if I missed anyone here is the "public" thank you.

The problem in this unit turned out to be a very leaky 100pf micamold (red and I suppose real mica) cap inside the discriminator can. Perhaps we should save and market these leaky caps to the "golden ears" audio crowd; they could be positioned as a "combined cathode resistor and capacitor bypass sealed in a single unit keeping the all important connection between these components free from oxygen, perfect for use in an oxygen free listening room". After replacement and realignment, the receiver is working very well. I am very pleased with the sensitivity, fidelity, and lack of drift on the FM band for a unit of this age. It also does a nice job on the SW bands and the calibration and sensitivity are good. Wish I had had one of these instead of the SX62 I used as a novice!

Rodger WQ9E

rbsingl@rs6000.cmp.ilstu.edu

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: Albert S Woodhull <aswNS@hamp.hampshire.edu>
Subject: Re: TCS RX switches, recapping, etc.?
Message-ID: <Pine.SUN.3.91.961119230652.21320B-100000@hamp>

On Tue, 19 Nov 1996 "Ray L. Mote" <rmote@rain.org> wrote:

> Looking at replacing the multi-section "bathtub" (mostly 0.1 uF 400V)
> caps, and it won't be easy. IF strip is one module per tube, with
> metal sheet extending down below the chassis for each. Has phenolic
> board on spacers, with bathtub mounted between board and metal sheet.
> Oh yes, the board has resistors on both sides. Each module is done
> this way. Wiring bundles attach to contacts on end of each board, and
> they have "bus bar" running *through* the ends of the boards to provide
> ground bus and a filament bus, with a good many connections made to the
> ground bus. What an absolute joy to have to pull one or more modules!
>
> Now for the question: anyone have any experience doing this? Is there
> an easier way? The manual says component replacement is "easy" -- HAH!

I converted a TCS set, bot rx and tx, -- wow, 20 years ago -- for use as a Novice rig in a club station of which I was trustee. I was very impressed with the quality of everything in these units, I wouldn't lightly assume that component replacements would be necessary.

The club went inactive quite a while ago, ham radio just hasn't been a big draw at an artsy liberal arts college, and this gear and some other things was about to be junked when I rescued it. Unfortunately a couple of components were pilfered from the tx for other projects, nothing major, the crystal switch and a key switch I had installed to prevent operation by nonlicensed students who had access to the shack. So it is going to take a little work to get these units in operation again. First thing is to find or make some power cables.

Someday I'll probably put them on the block, I wonder if anyone knows a reasonable price for the pair. They are not museum pieces, due to some minor modifications and a repainted panel, but functionally they are in close to original form.

I'm not really looking for offers now, just info, I can't bear to think of parting with them until I have had a chance to get them on the air, and that may not be very soon.

73, A1 N1AW

Albert S. Woodhull
Hampshire College, Amherst, MA
awoodhull@hamp.hampshire.edu
<http://minix1.hampshire.edu/asw/>

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: Michael Crestohl <mc@shore.net>
Subject: TRADE: Simpson 270 Series 4 Operators Manual for 270 Series 3 Manual?
Message-ID: <199611200839.DAA18567@northshore.shore.net>

I have a beautiful Simpson 270 Series 3 VOM and the manual for the 270 Series 4. Anyone got the book for the Series 3 and a Series 4 meter want to swap? The two units are quite different. Also anyone got some of the bits and parts for the 260-270? I recently acquired a mint rollcover cassring case and I'd like to find the screws that attach the meter unit inside the case - there are four of them with a 1/2" hex top.

73,

Michael Crestohl, W1RC
mc@shore.net

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: wj5j@juno.com (John D Hensley)
Subject: Valiant transformers needed
Message-ID: <19961119.205714.4799.7.wj5j@juno.com>

In an earlier post:

>Subject: THIS PLACE IS THE GREATEST
>Message-ID: <199611190359.WAA26127@mail-e2b.gnn.com>
>
>
>I put out a message for help in locating XFMR's for Viking II and
>low and behold it was all done with a few replies in a about 1 1/2
>hours. Great THANKS Guys
>
>Dan Arney :Hank" KN6DI
>

..now if you folks could just turn up transformers for the Valiant

and locate me a mechanical filter switch for my 51J4 under
re-construction....(hint) ;^)

Very 73,

Doug WJ5J
RNARS No. 4412
Navy MARS: NNN0BXX

From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: W2CRS@aol.com
Subject: VANTRON 300 AMP- what is it?
Message-ID: <961120171821_229202603@emout07.mail.aol.com>

Tonight I will be on 3580 (tune up for me!) with the 1937 Utah Junior, a
colorburst xtal I got yesterday from a local TV shop, and a Vantron 300 3-30
MC. linear amplifier. I bought the Vantron months ago at a local auction.
It's in very good condition and was made by Van Norman Electronics Division,
Manchester, N.H. , serial # 175, the name plate on the back says.

Has anyone ever heard of the Vantron 300? It uses some fairly exotic
tubes. At least, there're not in any of my handbooks or my 1946 RCA tube
manual. It uses an Amperex 5AR4 rectifier and two Amperex 6CA7's for about
50 watts out with 4 or 5 watts in. Someone please tell me the specs on the
5AR4 and especially the 6CA7's.

Last night Sandy, W5TVW, came back to my call but wasn't reading my 5
watts good enough for a QSO.

See you tonight. Yes, you will have to suffer as I learn how to use my
1953 Vibroplex bug.

73, Doug W0AH

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: "Gene S. Katz" <gkatz@motown.lmco.com>
Subject: Violins of Autumn BA message
Message-ID: <Chameleon.961120115708.gkatz@pc062164.motown.lmco.com>

Name: Gene Katz
E-mail: gkatz@motown.lmco.com
From boatanchors@theporch.com Wed Nov 20 16:25:11 1996
From: mknudsen@lucent.com
Subject: Re: Violins of Autumn BA message
Message-ID: <9611201716.AA09768@bock.ih.lucent.com>

If you're ever in Kobnhavn (Copenhagen), be sure to visit the Friheimuseum (Resistance Museum) which covers the Danish underground during the Nazi occupation. There is a small radio set with its lid open so you can see the tubes and the schematic on its lid. This was used by the Churchill Gang to receive instructions from Britain. Don't recall whether it was just an rx or also did tx.

The Germans treated the Danes remarkably well, considering them ethnic cousins, but I'm sure being caught with this radio under your bed would get you a quick trip to Gestapo hqtrs and your last cigarette.
73, mike knudsEn aa9rg

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: "Andy Howard, WA4KCY" <102452.362@CompuServe.COM>
Subject: Re: What is the 815 tube?
Message-ID: <961120133759_102452.362_DHT46-1@CompuServe.COM>

Robert,

The 815 is a pair of 807's in one envelope if my memory serves me correctly. They make good modulator tubes for low power service since the tube will run push-pull in itself. These tubes were used during WW-2 and there used to be a zillion of them at flea markets. There were several other dual tubes as well with two plate caps.

Hope this helps.

Plate dissipation 25 watts

Class C Amp	Class AB2 Audio Amp
Plate 500 volts	Plate 500 volts
Screen 175	Screen 125
Grid Voltage -45	Grid Voltage -15
Plate Current 150 ma.	Plate Current 22/150 ma.
Screen Current 15 ma.	Screen Current 32 ma. (both sides)
Drive Required .16 watt	Drive Required .36 watt (both sides)
	Plate to Plate Load 8000 ohms
Output 45 Watts	Output 54 Watts

Regards,

Andrew E. (Andy) Howard, Sr., WA4KCY
105 Sweet Bay Lane
Carrollton, Georgia 30116-8519
Telephone 770-832-0202
Southeastern Division Director, AM International
102452.362@compuserve.com

wa4kcy@usa.net wa4kcy@juno.com
Vintage Radio Home Page Address:
<http://ourworld.compuserve.com/homepages/sweetbay>
 <><

~~~~~  
"Our Constitution was made for a moral and religious people.  
It is wholly inadequate for the government of any other."  
                    John Adams-1798  
~~~~~

From boatanchors@theporch.com Wed Nov 20 11:05:53 1996
From: "Robert Fowle (KC8DBC)" <hammarlund@jacksonmi.com>
Subject: Re: What is the 815 tube?
Message-ID: <2.2.16.19961120100212.232fed74@fvmail.com>

thanks Andy!!

**** Please, Visit my Web Page.....****

=====]-[->

Robert Fowle KC8DBC
The HAMMARLUND Historian
Ph. 517-789-6721
1215 Winifred
Jackson, Mich. 49202-1946
E-mail: hammarlund@jacksonmi.com
Web Page: <http://www.jacksonmi.com/hammarlund>

HAMMARLUND LITERATURE WANTED

WANTED: MANUALS FOR ANY MAKE RADIO EQUIPMENT

=====]-[->

see it first on my list...to be put on the 'mail list' (send me email)
or see it later in.....

Boatanchors news group: rec.radio.amateur.boatanchors